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EXAMINER

RAJ, RAJIV J

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/743,443	Applicant(s) BARRERA, JOSE LUIS MOCTEZUMA	
	Examiner RAJIV J. RAJ	Art Unit 3686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-12,14-16,18,20-27,29-33 and 35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-12,14-16,18,20-27,29-33 and 35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 30, 2009 has been entered.

Status of Claims

2. This action is in reply to the amendment filed on 02 December 2009.
3. Claims 1, 3, 8, 10, 12, 14, 16, 23, 25, 29, 31, 33 and 35 have been amended.
4. Claim 36 has been canceled.
5. Claims 1, 3, 5-12, 14-16, 18, 20-27, 29-33 and 35 are currently pending and have been examined.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. The 35 U.S.C. 101 rejection for claims 1-15 and 35-36 have been withdrawn in light of applicant's amendment.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1, 16 & 35 (and all claims dependent on these claims) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The applicant's claim language calls for selection of the consequent step, from a group of steps including the "*current step, a prior step, and a future step*". The Examiner points out that the claim language does not account for a scenario where there is no "*prior step*" because the invention is at the initial step. In addition the claim language fails to disclose a scenario where there is no "*future step*" because the invention is at the final step of the procedure. The applicant's claims are vague and indefinite as to the meaning of these limitations.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 1, 3, 5-12, 14-16, 18, 20-27, 29-33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malackowski et al. (US 2003/0093103 A1) (hereinafter Malackowski) in view Van Der Brug (US 5954648) (hereinafter Van Der Brug) of in further view of DiGioia et al. (US 6205411 B1) (hereinafter DiGioia).

Claim 1**Malackowski as shown, discloses the following limitations:**

- *providing a computer navigation system that implements the multi-step procedure wherein the computer navigation system performs the steps; (see at least Malackowski Claim:15 & 16)*
- *determining the consequent step within the multi-step surgical procedure based on the identity of the component and the particular step; (see at least Malackowski [0087])*
- *wherein the computer navigation system selects the consequent step from a group of steps of the multi-step surgical procedure including at least a current step, a prior step, and a future step; (see at least Malackowski [0154-0158])*
- *based on the consequent step; (see at least Malackowski Claim:15 & 16)*

Malackowski does not disclose the following limitation, however Van Der Brug, as shown, does:

- *identifying a multi-step surgical procedure; (see at least Van Der Brug Column:1 Lines:23-67 Column:2 Lines:1-50)*
- *identifying a component usable in the multi-step procedure; (see at least Van Der Brug Column:1 Lines:23-28)*
- *automatically jumping to and displaying a representation related to the consequent step on a display unit without direct interaction between a user and a computer system; (see at least Van Der Brug Fig. Items 4,5,8 & related text)*

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

While Malackowski/Van Der Brug does not specifically disclose "*automatically jumping to and . . . without direct interaction between a user and a computer system*", Examiner points out that as discussed in MPEP § 2144, if the facts in a prior legal decision are sufficiently similar to those in an application under examination, the examiner may use the rationale used by the court. Examples directed to various common practices which

the court has held normally require only ordinary skill in the art and hence are considered routine expedients are discussed below. If the applicant has demonstrated the criticality of a specific limitation, it would not be appropriate to rely solely on case law as the rationale to support an obviousness rejection.

In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) (Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable over the prior art because the claimed invention combined "old permanent-mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed." The court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.

"The routine addition of modern electronics to an otherwise unpatentable invention typically creates a prima facie case of obviousness. Moreover, there is no pertinent evidence of secondary considerations because the only evidence offered is of long-felt need for the unpatentable mental process itself, not long-felt need for the combination of the mental process and a modern communication device or computer." *In re Comiskey*, 499 F. 3d 1365, 84 U.S.P.Q. 2d 1670 (Fed. Cir. 2007)

Malackowski/Van Der Brug do not disclose the following limitation, however DiGioia, as shown, does:

- *identifying the particular step within the multi-step procedure;* (see at least DiGioia Column:8 Lines:4-12)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the feature of DiGioia into Malackowski/Van Der Brug with the motivation to provide an improved method and system for assessing, identifying, and planning the appropriate steps for a medical procedure. (see at least DiGioia Column:5 Lines: 57-67 Column:6 Lines:1-8)

Claim 3

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 1.

Van Der Brug further discloses the following limitation:

- *wherein the consequent step is selected based further on the location of the company in the surgical field;* (see at least Malackowski [0154-0158])

Malackowski does not disclose the following limitation, however Van Der Brug, as shown, does:

- *identifying a particular location of the component within a surgical field;* (see at least Van De Berg Column: 3, line 57 to column 4, line 6)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski/Van Der Brug/DiGioia with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

Claim 5

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 1.

Van Der Brug further discloses the following limitation:

- *the component is a multipart component capable of self identifying the component's composite parts* (see at least Van De Berg Figure Items:1,3,10 as well as related text)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski/Van Der Brug/DiGioia with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

Claim 6

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 5.

Van Der Brug further discloses the following limitation:

- *the multipart component is a tool with an attached device wherein the tool can identify the attached device* (see at least Van De Berg Figure Items:1,3,10)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski/Van Der Brug/DiGioia with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

Claim 7

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 5.

Van Der Brug further discloses the following limitation:

- *the multipart component is a tool with an attached device wherein the attached device is separately identifiable;* (see at least Van De Berg Figure Items:1,3,10)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski/Van Der Brug/DiGioia with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

Claim 8

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 3.

Van Der Brug further discloses the following limitation:

- *the identification of a particular location is tracked by a computer navigation system.* (see at least Van De Berg Column:1 Lines:52-58)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski/Van Der Brug/DiGioia with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

Claim 9

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 1.

Malackowski further discloses the following limitation:

- *configuring the consequent step with a parameter of the component.* (see at least Malackowski [0077])

Claim 10

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 1.

Malackowski further discloses the following limitation:

- *the consequent step further comprises a warning that the component is inappropriate for the particular step* (see at least Malackowski [0078])

Claim 11

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 1.

Van Der Brug further discloses the following limitation:

- *the consequent step includes controlling a piece of auxiliary apparatus.* (see at least Van De Berg Column:4 Lines:44-46)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski/Van Der Brug/DiGioia with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

Claim 12

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 1.

Malackowski further discloses the following limitations:

- *identifying an additional component and* (see at least Malackowski [0165])
- *wherein the determination of the consequent step is based on the identity of the component, the identity of the additional component, and the particular step* (see at least Malackowski [0087])

Claim 14

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 1.

Van Der Brug further discloses the following limitation:

- *the multi-step surgical procedure is a computer controlled and directed surgical procedure;* (see at least Van De Berg Column:1 Lines:26-30)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski/Van Der Brug/DiGioia with the motivation to provide an improved

method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

Claim 15

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 1.

Malackowski further discloses the following limitations:

- *a database of user preferences and* (see at least Malackowski [0072])
- *wherein the determining step is based on the database, the identity of the component, and the particular step* (see at least Malackowski [0087])

Malackowski does not disclose the following limitation, however Van Der Brug, as shown, does:

- *identifying a multi-step surgical procedure;* (see at least Van Der Brug Column:1 Lines:23-67 Column:2 Lines:1-50)
- *identifying a component usable in the multi-step procedure;* (see at least Van Der Brug Column:1 Lines:23-28)
- *automatically jumping to and displaying a representation related to the consequent step on a display unit without direct interaction between a user and a computer system;* (see at least Van Der Brug Fig. Items 4,5,8 & related text)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

While Malackowski/Van Der Brug does not specifically disclose "*automatically jumping to and . . . without direct interaction between a user and a computer system*", Examiner points out that as discussed in MPEP § 2144, if the facts in a prior legal decision are sufficiently similar to those in an application under examination, the examiner may use the rationale used by the court. Examples directed to various common practices which

the court has held normally require only ordinary skill in the art and hence are considered routine expedients are discussed below. If the applicant has demonstrated the criticality of a specific limitation, it would not be appropriate to rely solely on case law as the rationale to support an obviousness rejection.

In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) (Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable over the prior art because the claimed invention combined "old permanent-mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed." The court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.

"The routine addition of modern electronics to an otherwise unpatentable invention typically creates a prima facie case of obviousness. Moreover, there is no pertinent evidence of secondary considerations because the only evidence offered is of long-felt need for the unpatentable mental process itself, not long-felt need for the combination of the mental process and a modern communication device or computer." *In re Comiskey*, 499 F. 3d 1365, 84 U.S.P.Q. 2d 1670 (Fed. Cir. 2007)

Malackowski/Van Der Brug do not disclose the following limitation, however DiGioia, as shown, does:

- *identifying the particular step within the multi-step procedure;* (see at least DiGioia Column:8 Lines:4-12)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the feature of DiGioia into Malackowski/Van Der Brug with the motivation to provide an improved method and system for assessing, identifying, and planning the appropriate steps for a medical procedure. (see at least DiGioia Column:5 Lines: 57-67 Column:6 Lines:1-8)

Claim 16

Malackowski as shown, discloses the following limitations:

- *means for identifying a component usable in the multi-step surgical procedure;* (see at least Malackowski [0045])

- *means for determining the consequent step within the multi-step surgical procedure based on the identity of the component and the particular step; (see at least Malackowski [0087])*
- *wherein the consequent step is selected from a group of steps including at least a current step, a prior step, and a future step; (see at least Malackowski [0154-0158])*
- *based on the consequent step; (see at least Malackowski Claim:15 & 16)*

Malackowski does not disclose the following limitations, however Van Der Brug, as shown, does:

- *means for . . . automatically jumping to and displaying representation related to the consequent step without direct interaction between a user and the computer navigation system; (see at least Van Der Brug Fig. Items 4,5,8 & related text)*

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

While Malackowski/Van Der Brug does not specifically disclose "*automatically jumping to and . . . without direct interaction between a user and a computer system*", Examiner points out that as discussed in MPEP § 2144, if the facts in a prior legal decision are sufficiently similar to those in an application under examination, the examiner may use the rationale used by the court. Examples directed to various common practices which the court has held normally require only ordinary skill in the art and hence are considered routine expedients are discussed below. If the applicant has demonstrated the criticality of a specific limitation, it would not be appropriate to rely solely on case law as the rationale to support an obviousness rejection.

In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) (Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable over the prior art because the claimed invention combined "old permanent-mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed." The court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.

"The routine addition of modern electronics to an otherwise unpatentable invention typically creates a prima facie case of obviousness. Moreover, there is no pertinent evidence of secondary considerations because the only evidence offered is of long-felt need for the unpatentable mental process itself, not long-felt need for the combination of the mental process and a modern communication device or computer." *In re Comiskey*, 499 F. 3d 1365, 84 U.S.P.Q. 2d 1670 (Fed. Cir. 2007)

Malackowski/Van Der Brug do not disclose the following limitation, however DiGioia, as shown, does:

- *means for identifying the particular step within the multi-step procedure;* (see at least DiGioia [0131])

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the feature of DiGioia into Malackowski/Van Der Brug with the motivation to provide an improved method and system for assessing, identifying, and planning the appropriate steps for a medical procedure. (see at least DiGioia Column:5 Lines: 57-67 Column:6 Lines:1-8)

Claim 18

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 16.

Van Der Brug further discloses the following limitation:

- *means for identifying a particular location of the component and wherein the third circuit determines the consequent step based on the location, the identity of the component, and the context.* (see at least Van De Berg Column:3&4 Lines:57-60 & 2-6)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski/Van Der Brug/DiGioia with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

Malackowski/Van Der Brug does not disclose the following limitation, however DiGioia, as shown does:

- *wherein the means for determining determines the consequent step based on the location, the identity of the component and particular step* (see at least DiGioia [0131])

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the feature of DiGioia into Malackowski/Van Der Brug with the motivation to provide an improved method and system for assessing, identifying, and planning the appropriate steps for a medical procedure. (see at least DiGioia Column:5 Lines: 57-67 Column:6 Lines:1-8)

Claim 20

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 16.

Van Der Brug further discloses the following limitation:

- *the component is a multipart component capable of self identifying the component's composite parts* (see at least Van De Berg Fig. Items:1,3,10 & related text)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski/Van Der Brug/DiGioia with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

Claim 21

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 20.

Van Der Brug further discloses the following limitation:

- *the multipart component is a tool with an attached device wherein the tool can identify the attached device* (see at least Van De Berg Fig. Items:1,3,10 & related text)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski/Van Der Brug/DiGioia with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

Claim 22

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 20.

Van Der Brug further discloses the following limitation:

- *the multipart component is a tool with an attached device wherein the attached device separately identifiable* (see at least Van De Berg Figure Items:1,3,10)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski/Van Der Brug/DiGioia with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

Claim 23

The combination Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 18.

Van Der Brug further discloses the following limitation:

- *means for identifying a particular location of the component* (see at least Van Der Brug Column:3 Lines:57-65 Column:4 Lines:1-4)
- *component is incorporated within the computer navigation system.* (see at least Van De Berg Column:1 Lines:52-58 and Figure & related text)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski/Van Der Brug/DiGioia with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

Claim 24

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 16.

Malackowski further discloses the following limitation:

- *means for configuring the consequent step with a parameter of the component.* (see at least Malackowski [0077])

Claim 25

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 16

Malackowski further disclose the following limitation:

- *the consequent step comprises a warning that the component is inappropriate for the particular step;*
(see at least Malackowski [0078])

Claim 26

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 16.

Van Der Brug further discloses the following limitation:

- *the consequent step includes controlling a piece of auxiliary apparatus.* (see at least Van De Berg Column:4 Lines:44-46)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski/Van Der Brug/DiGioia with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

Claim 27

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 16

Malackowski further discloses the following limitations:

- *means for identifying an additional component and* (see at least Malackowski [0165])
- *means for determining the consequent step based on the identity of the component, the identity of the additional component, and the particular step* (see at least Malackowski [0087])

Claim 29

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 16.

Van Der Brug further discloses the following limitation:

- *the multi-step surgical procedure is a computer controlled and directed surgical procedure;*
(see at least Van De Berg Column:1 Lines:26-30)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski/Van Der Brug/DiGioia with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

Claim 30

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 16.

Malackowski further discloses the following limitations:

- *a database of user preferences and (see at least Malackowski [0072])*
- *means for determining the consequent step based on the database, the identity of the component, and the particular step (see at least Malackowski [0087])*

Claim 31

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 1.

Malackowski further discloses the following limitations:

- *wherein one or more components needed for each step of the multi-step surgical procedure are known (see at least Malackowski [0060] & [0155])*

Claim 32

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 1.

Malackowski further discloses the following limitations:

- *wherein the particular step and the consequent step relate to different representations on a display screen (see at least Malackowski [0157])*

Claim 33

The combination of Malackowski/Van Der Brug/DiGioia discloses all the limitations of Claim 1.

Malackowski further discloses the following limitations:

- *determining whether the component is appropriate for the current step, the prior step, and the future step, and if not, wherein the consequent step comprises a warning that the component is inappropriate for the multi-step surgical procedure (see at least Malackowski [0134, 0154-0158])*

Claim 35

Van Der Brug as shown, discloses the following limitations:

- *providing a computer navigation system that implements the multi-step procedure wherein the computer navigation system performs the steps of;* (see at least Malackowski Claim:15 & 16)
- *identifying a component usable in the multi-step procedure;* (see at least Malackowski [0045])
- *determining the consequent step within the multi-step procedure based on the location, the identity of the component, and the particular step;* (see at least Malackowski [0087])
- *wherein the consequent step is selected from a group of steps including at least a current step, a prior step, and a future step;* (see at least Malackowski [0154-0158])
- *based on the consequent step;* (see at least Malackowski Claim:15 & 16)

Van Der Brug does not disclose the following limitations, however Malackowski, as shown, does:

- *identifying a multi-step procedure;* (see at least Van Der Brug Column:1 Lines:23-67 Column:2 Lines:1-50)
- *identifying a particular location of the component;* (see at least Van De Berg Column: 3, line 57 to column 4, line 6)
- *displaying a representation related to the consequent step on a display unit;* (see at least Van Der Brug Fig. Items 4,5,8 & related text)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Van Der Brug to Malackowski/Van Der Brug/DiGioia with the motivation to provide an improved method and system for image guided multi-step medical procedure invention. (see at least Van Der Brug Column:1 Lines:50-67 Column:2 Lines:1-67 Column:3 Lines:1-47)

Van Der Brug/Malackowski do not disclose the following limitation, however DiGioia, as shown, does:

- *identifying a particular step within the multi-step procedure;* (see at least DiGioia [0131])

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the feature of DiGioia into Van Der Brug/Malackowski with the motivation to provide an improved method and system for assessing, identifying, and planning the appropriate steps for a medical procedure. (see at least DiGioia Column:5 Lines: 57-67 Column:6 Lines:1-8)

Response to Arguments

13. Applicant's arguments filed 02 December 2009 have been fully considered but they are not persuasive.
14. In response to interview between applicant and the Office, Malackowski has been made the primary reference.
15. In response to applicant's stated arguments, all the issues have been addressed in the series of Interviews since the applicant filed these arguments.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Rajiv J. Raj** whose telephone number is **(571) 270-3930**. The Examiner can normally be reached on Monday-Friday, 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **Jerry O'Connor** can be reached at **571.272.6787**.

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